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Verification of Proper Nasogastric Tube Placement

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BACKGROUND

- The risks of having a NG tube in the wrong place can have significant effects on a patient so it's extremely important to ensure the tube is in the correct place (Chen, et al., 2013).
- The risk of starting decompression without knowing proper NG tube placement can have significant effects on a patient, if for example the NG tube is placed in the lung (Chen, et al., 2013).
- Current practice at LVHN for NG tube placement verification includes audible air injection or aspirating gastric contents when NG tube is being used for other purposes than feeding such as: suction, gastric lavage or medication administration (Panzarrela, M., et al., 1990).

PICO QUESTION

In nurses taking care of adult patients with nasogastric tubes, does the use of an initial chest x-ray compared with air auscultation affect nurses' confidence in verifying correct tube placement

- P: Nurses taking care of adult patients with nasogastric tubes
- I: Initial chest x-ray to check placement of tube
- C: Air auscultation to check placement of tube
- O: Nurses' confidence in verifying correct tube placement

EVIDENCE

- 8 evidence based articles were studied
- 8/8 articles claim that an initial chest x-ray is the gold standard for verifying placement of NG tubes
 - “Radiography was specified as the only reliable method for confirming tube location” (Elpern, et al, 2007)
- 8/8 articles claim that air auscultation (current LVHN policy) is not a reliable means to checking placement
 - “Should be discontinued because of their lack of established efficacy and potential risk for harm” (Bourgault and Halm, 2009)

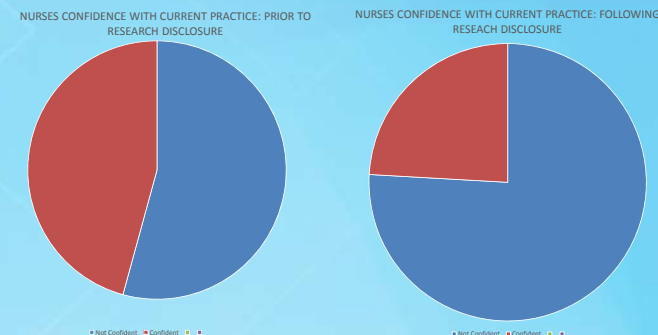
METHODS

- A survey was conducted on inpatient, adult medical surgical/oncology units, 7C and 5T, using an online survey generator
- 36 nurses with varying levels of experience were surveyed, 29 nurses completed the survey in full
- The initial survey questions asked how confident nurses were about the current policy for checking NG tube placement
- Education was provided on evidence findings regarding proper placement verification
- Follow up questions were asked regarding the nurses' confidence level with the current policy after learning new information, and their confidence level with an updated policy which reflects the research
- Results were compared to obtain outcomes
- We did not assess if Nurses' were confident if gastric output was seen when used with decompression
 - It is a clear understanding in this case that it is functioning properly .

RESULTS

- Before being presented with the research, nurses were asked how confident they were with the current practice to verify NG tube placement:
 - 54.8% of Nurses were not confident
 - 45.1% were confident
- After being presented with the research:
 - 75.9% of Nurses were not confident
 - 24.1% of Nurses felt confident
- 100% of the Nurses who completed the survey agreed they would be confident if an initial chest x-ray was performed for every NG tube insertion.

OUTCOMES



CONCLUSIONS

- This study was done with a small number of RN participants throughout LVHN but our data proves that nurses would be more confident when caring for a patient with a NG tube if they had received an initial chest x-ray verifying placement after insertion.
- We suggest that upon initiation of a NG tube, that a chest x-ray be performed . Once placement is verified , the tube should be marked and measured.
- A larger survey audience throughout the Network would provide more conclusive data as to how confident nurses at LVHN are with our current practice of NG tube placement verification.

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